

**WHAT IS CLAIMED IS:**

- 1 1. A method of managing resources, said method  
2 comprising:  
3 receiving one or more buffer variables and one or more  
4 endogenous variables;  
5 determining one or more exogenous variables; and  
6 simulating one or more resource requirements using the  
7 buffer variables, the endogenous variables, and  
8 the exogenous variables.
- 1 2. The method as described in claim 1 wherein the buffer  
2 variable is selected from the group consisting of a  
3 buffer size, a buffer zone, and a virtual buffer.
- 1 3. The method as described in claim 1 further comprising:  
2 selecting a simulation mode; and  
3 receiving a resource plan input based on the selected  
4 simulation mode.
- 1 4. The method as described in claim 3 wherein the  
2 simulation mode is selected from the group consisting  
3 of a research mode, a learning mode, and a decision-  
4 support mode.
- 1 5. The method as described in claim 1 wherein at least  
2 one of the endogenous variables is selected from the  
3 group consisting of a capacity increase decision, a  
4 capacity decrease decision, and a resource supply  
5 source.
- 1 6. The method as described in claim 1 wherein at least  
2 one of the exogenous variables is determined by  
3 calculating a resource supply.

- 1 7. The method as described in claim 1 further comprising:  
2 generating a resource usage report that includes the  
3 resource requirements in response to the  
4 simulation.
- 1 8. The method as described in claim 1 wherein the  
2 simulating includes performing discrete event systems  
3 simulation.
- 1 9. The method as described in claim 1 further comprising:  
2 selecting a replenishment mode, the replenishment mode  
3 including a pure replenishment mode and a  
4 forecast replenishment mode; and  
5 including the selected replenishment mode as an input  
6 to the simulating.
- 1 10. An information handling system comprising:  
2 one or more processors;  
3 a memory accessible by the processors;  
4 one or more nonvolatile storage devices accessible by  
5 the processors;  
6 a resource management tool, the resource management  
7 tool including:  
8 means for receiving one or more buffer variables  
9 and one or more endogenous variables;  
10 means for determining one or more exogenous  
11 variables; and  
12 means for simulating one or more resource  
13 requirements using the buffer variables, the  
14 endogenous variables, and the exogenous  
15 variables.

- 1 11. The information handling system as described in claim  
2 10 wherein the buffer variable is selected from the  
3 group consisting of a buffer size, a buffer zone, and  
4 a virtual buffer.
- 1 12. The information handling system as described in claim  
2 10 further comprising:  
3 means for selecting a simulation mode; and  
4 means for receiving a resource plan input based on the  
5 selected simulation mode.
- 1 13. The information handling system as described in claim  
2 12 wherein the simulation mode is selected from the  
3 group consisting of a research mode, a learning mode,  
4 and a decision-support mode.
- 1 14. The information handling system as described in claim  
2 10 wherein at least one of the endogenous variables is  
3 selected from the group consisting of a capacity  
4 increase decision, a capacity decrease decision, and a  
5 resource supply source.
- 1 15. The information handling system as described in claim  
2 10 wherein at least one of the exogenous variables is  
3 determined by calculating a resource supply.
- 1 16. The information handling system as described in claim  
2 10 further comprising:  
3 means for generating a resource usage report that  
4 includes the resource requirements in response to  
5 the simulation.

- 1 17. The information handling system as described in claim  
2 10 wherein the simulating includes performing discrete  
3 event systems simulation.
- 1 18. The information handling system as described in claim  
2 10 further comprising:  
3 means for selecting a replenishment mode, the  
4 replenishment mode including a pure replenishment  
5 mode and a forecast replenishment mode; and  
6 means for including the selected replenishment mode as  
7 an input to the simulating.
- 1 19. A computer program product stored in a computer  
2 operable media for managing resources, said computer  
3 program product comprising:  
4 means for receiving one or more buffer variables and  
5 one or more endogenous variables;  
6 means for determining one or more exogenous variables;  
7 and  
8 means for simulating one or more resource requirements  
9 using the buffer variables, the endogenous  
10 variables, and the exogenous variables.
- 1 20. The information handling system as described in claim  
2 19 wherein the buffer variable is selected from the  
3 group consisting of a buffer size, a buffer zone, and  
4 a virtual buffer.
- 1 21. The information handling system as described in claim  
2 19 further comprising:  
3 means for selecting a simulation mode; and  
4 means for receiving a resource plan input based on the  
5 selected simulation mode.

1 22. The information handling system as described in claim  
2 21 wherein the simulation mode is selected from the  
3 group consisting of a research mode, a learning mode,  
4 and a decision-support mode.

1 23. The information handling system as described in claim  
2 19 wherein at least one of the endogenous variables is  
3 selected from the group consisting of a capacity  
4 increase decision, a capacity decrease decision, and a  
5 resource supply source.

1    24.    The information handling system as described in claim  
2            19 wherein at least one of the exogenous variables is  
3            determined by calculating a resource supply.

1    25.    The information handling system as described in claim  
2            19 further comprising:  
3            means for generating a resource usage report that  
4                   includes the resource requirements in response to  
5                   the simulation.

1    26.    The information handling system as described in claim  
2            19 wherein the simulating includes performing discrete  
3            event systems simulation.

1 27. The information handling system as described in claim  
2 19 further comprising:  
3 means for selecting a replenishment mode, the  
4 replenishment mode including a pure replenishment  
5 mode and a forecast replenishment mode; and  
6 means for including the selected replenishment mode as  
7 an input to the simulating.